DEPARTMENT of ENVIRONMENTAL SERVICES Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: WHITTON POND	Lake Area (ha):	57.71
Town: ALBANY	Maximum depth (m):	17.4
County: Carroll	Mean depth (m):	3.8
River Basin: Saco	Volume (m³):	2215000
Latitude: 43°56'29" N	Relative depth:	2.0
Longitude: 71°11'53" W	Shore configuration:	2.15
Elevation (ft): 808	Areal water load (m/yr): 3.38
Shore length (m): 5800	Flushing rate (yr^{-1}) :	0.90
Watershed area (ha): 310.8	P retention coeff.:	0.73
<pre>% watershed ponded: 1.6</pre>	Lake type:	natural

BIOLOGICAL:	12 February 2002	1 August 2001
DOM. PHYTOPLANKTON (% TOTAL) #1	ASTERIONELLA 99%	DINOBRYON 75%
#2		QUADRIGULA 10%
#3		
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		0.92
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 29%	KERATELLA 49%
#2	KELLICOTTIA 25%	NAUPLIUS LARVA 21%
#3	NAUPLIUS LARVA 15%	CALANOID COPEPOD 15%
ROTIFERS/LITER	98	89
MICROCRUSTACEA/LITER	68	64
ZOOPLANKTON ABUNDANCE (#/L)	171	157
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		6.8
BOTTOM DISSOLVED OXYGEN (mg/L)	9.7	0.1
BACTERIA (E. coli, #/100 ml) #1		4
#2		< 1
#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 6.0 Hypolimnion volume (m^3) : 30700 Anoxic volume (m^3) : 1200

CHEMICAL:			WHITTON I	POND	
	12 February 2002		1 August 2001		
DEPTH (m)	5.0	10.0	2.0	8.0	12.0
pH (units)	6.0	5.9	6.2	5.9	6.1
A.N.C. (Alkalinity)	1.1	1.0	1.0	1.2	0.9
NITRATE NITROGEN	< 0.05	< 0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.20	0.10	0.10	0.20	0.10
TOTAL PHOSPHORUS	0.009	0.010	<0.005	0.006	<0.005
CONDUCTIVITY (µmhos/cm)	17.7	18.1	16.6	16.3	16.6
APPARENT COLOR (cpu)	< 5	< 5	< 5	10	8
MAGNESIUM			< 0.10		
CALCIUM	·		< 1.0		
SODIUM			1.6		
POTASSIUM			< 0.40		
CHLORIDE	< 3	< 3	< 2		< 2
SULFATE	3	3	2		2
TN : TP	22	10			

All results in mg/L unless indicated otherwise

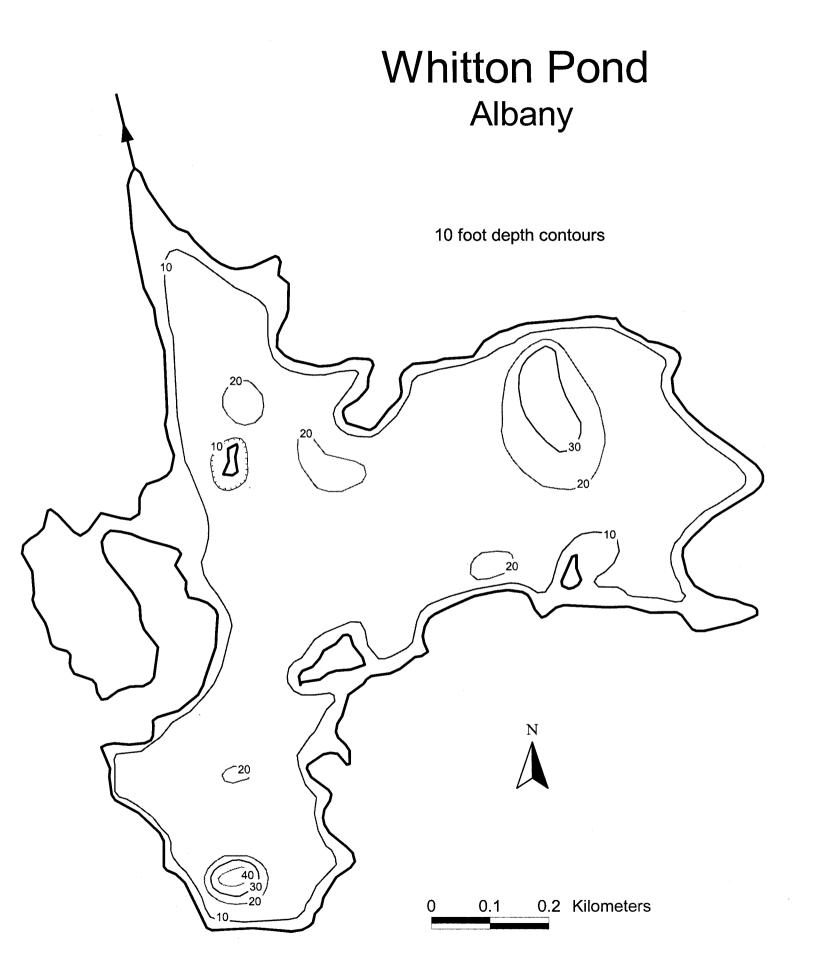
TROPHIC CLASSIFICATION: 2001

CALCITE SATURATION INDEX

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
3	1	3	0	7	Meso.

COMMENTS:

- 1. Previously surveyed in 1984.
- 2. Access road to the pond is difficult to find and very rough and, once at the pond, there is no boat launch site and little parking.
- 3. This is a relatively shallow pond overall with a small deep hole at the southern end and a moderately deep area in the northern end.
- 4. This is a moderately acidic, clear water pond with low phytoplankton production. Nutrients as well as conductivity and cations were also low. It was rated mesotrophic (one less point would rate it oligotrophic) primarily because of the growth of pickerelweed and water shield along much of the shoreline. The bottom dissolved oxygen was less in 2001 than in 1984 when the pond was rated oligotrophic.
- 5. The winter net phytoplankton was nearly uni-algal with the diatom Asterionella.
- 6. Only about 8 to 10 cottages on the pond.
- 7. Outstanding view of Mt. Chocorua from the pond.



FIELD DATA SHEET

LAKE: WHITTON POND TOWN: ALBANY

DATE: 08/01/2001 WEATHER: Sunny, warm & breezy

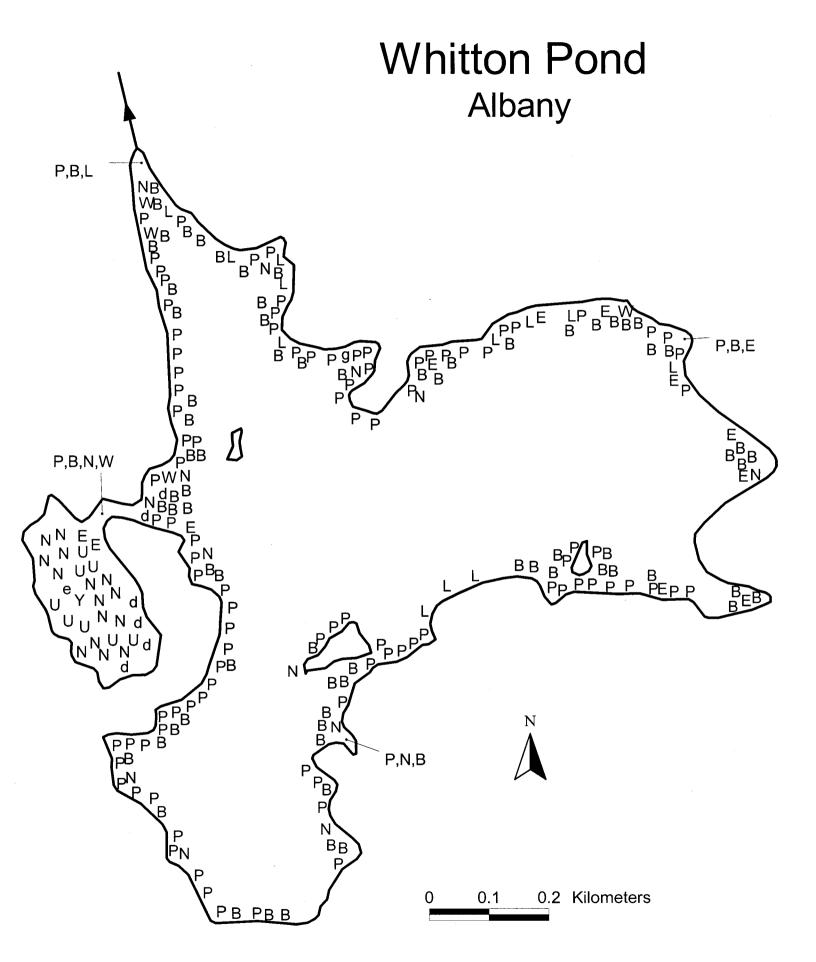
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGI SATURA!	
0.1	24.6	8.5	102	*
1.0	24.4	8.4	101	8
2.0	23.6	8.5	100	8
3.0	23.4	8.4	99	8
4.0	23.2	8.3	97	8
5.0	22.0	9.3	106	8
6.0	17.5	11.5	120	ક
7.0	12.6	12.5	117	8
8.0	10.2	11.2	99	ક
9.0	8.6	10.1	87	ક
10.0	7.7	8.2	69	ક
11.0	7.0	6.3	52	8
12.0	6.6	3.2	26	*
13.0	6.4	0.4	3	ક
13.5	6.6	0.1	1	8
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SECCHI DISK (m): 6.8 COMMENTS:

BOTTOM DEPTH (m): 14.2

TIME: 1303

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAK	E: WHITTON POND	TOWN: ALBANY	DATE: 08/01/2001
Key		NT NAME	ADUNDANCE
кей	GENERIC	COMMON	ABUNDANCE
Р	Pontederia cordata	Pickerelweed	Common
В	Brasenia schreberi	Water shield	Scat/Common
W	Potamogeton	Pondweed	Scattered
N	Nymphaea	White water lily	Scattered
L	Lobelia dortmanna	Water lobelia	Sparse
g	Myrica gale	Sweet gale	Sparse
E	Eriocaulon septangulare	Pipewort	Sparse
U	Utricularia	Bladderwort	Sparse
Y	Nuphar	Yellow water lily	Sparse
е	Eleocharis	Spike rush	Sparse
d	Dulichium arundinaceum	Three-way sedge	Sparse
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OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

- 1. Plants were abundant in the small, isolated western cove, which is also known as Back Pond.
- 2. Bladderwort covered the bottom of Back Pond.
- 3. Sterile, thread-like plant growth was present along most of the observable bottom but is not listed above or depicted on the map.